

ENCODING AND DECODING OF DIGITAL DATA USING CUES DERIVABLE AT A DECODER

ABSTRACT OF THE DISCLOSURE

Encoding digital data by using cues at a decoder. An encoder selects an index to indicate a target codeword from the complete space of all codewords to a decoder. The index identifies a group or a set of codewords that contain the target codeword. The sets are represented by a bit-length that is smaller than the code word bit-length thus achieving compression. Two or more codewords in such a set are separated by a predetermined distance and all such sets of codewords considered together form the complete space of all codewords. The encoder sends syntax information, including the index, to specify the decoding. The decoder then uses a set of candidate cues in a comparison operation to determine the target codeword from the indexed set. Processing complexity can be allocated among the encoder, decoder and other possible devices as, for example, in a digital network.